CALIFORNIA WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-14
WASTE DISCHARGE REQUIREMENTS FOR:

SANTA FE LAND IMPROVEMENT COMPANY
POINT ISABEL PROPERTY
RICHMOND
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board), finds that:

1. Santa Fe Land Improvement Company, 5200 East Sheila Street, Los Angeles, California, owns a 50-acre vacant site known as the Point Isabel Property located at the end of Rydin Road in Richmond, Contra Costa County, along the San Francisco Bay shoreline. Santa Fe Land Improvement Company is hereinafter referred to as the discharger.

2. The discharger applied for waste discharge requirements in its application dated November 24, 1986 for post-closure monitoring of its Point Isabel Property where remedial actions for lead and zinc contamination have been completed.

3. In June 1980, the California Department of Fish and Game (DFG) found elevated trace metals levels in clam and mussel tissue collected from Point Isabel Cove on the discharger's property. This investigation was performed as part of a bay-wide contractual study conducted by DFG for the Board's Shellfish Harvesting Program. DFG's report attributed the source of trace metals contamination to lead-acid storage battery casings deposited at the shoreline in Point Isabel Cove.

4. Subsequent sediment sampling in February 1981 by Board staff found elevated lead and zinc levels in the Point Isabel Cove sediments and in sediments along Hoffman Channel. Direct deposition of battery casings and unspecified fill material and polluted surface runoff from these areas were cited as sources of pollution. Other areas of battery casings and fill material deposition were observed on the site.

5. The discharger prepared a number of investigative reports as ordered by the Contra Costa County Health Department and as reviewed by the Board and the California Department of Health Services (DOHS).

6. The Board issued Cleanup and Abatement Order No. 84-006 on August 15, 1984, requiring further investigations and development of remedial measures by the discharger for the contaminated bay sediments and shellfish beds. The Board revised the order on February 20, 1985 as Cleanup and Abatement Order No. 85-008. This revised order found the discharger's remedial action plan acceptable and also revised the time schedule to facilitate implementation of remedial measures.

7. At the Board's March 19, 1986 meeting, staff presented a status report

to the Board discussing that the discharger was in compliance with Cleanup and Abatement Order No. 85-008 requirements for soil and sediment cleanup and shellfish bed mitigation. Although the discharger did not meet the time schedule specifications, the staff found that this was due to unexpected delays in obtaining necessary construction permits and to management changes as a consequence of the anticipated merging of the Santa Fe and Southern Pacific Railways rather than to the discharger's shortcomings. The staff also contended that revision of the current cleanup and abatement order was not necessary since remediation would be completed by the end of 1986 at which time waste discharge requirements would be considered for long-term, post closure monitoring of the cleanup site.

8. The discharger completed all remedial action work as planned on November 12, 1986. Work included removal of approximately 4,500 cubic yards of sediment and soil material containing lead exceeding the 1,000 mg/kg (milligrams per killigram) total threshhold level concentration for hazardous waste to a legally approved waste disposal site, dredging of Point Isabel Cove and Hoffman Channel sediments to background levels for lead and zinc, drying and encapsulation with clean fill of dredged material and soils within the site's central area, shoreline stabilization, full restoration of shellfish bed habitat, and capping, grading and landscaping of the entire site to minimize rainfall infiltration and to effect an aesthetic final appearance. This work was confirmed during a December 16, 1986 site inspection by Board staff with the discharger and DOHS and DFG staffs. Final shellfish bed restoration work consisting of re-seeding with a viable shellfish population will be performed in the spring of 1987 or as determined by DFG. Remediation costs total approximately $6 million.

9. Repopulation of the shellfish bed is anticipated to take at least two years from the time of re-seeding. During this time, the shellfish beds should be protected against adverse non-natural disturbances. The integrities of the site cap, vegetative cover, and stabilized shoreline should also be protected to the extent feasible from adverse human disturbance.

10. The discharger submitted a satisfactory post-closure site monitoring plan for the Point Isabel Property dated November 18, 1986. The plan consists of periodic inspection and maintenance of the site cap integrity and surface drainage system and semi-annual ground water monitoring from an existing french drain system. The discharger will also perform shellfish and sediment monitoring in order to assure that the site no longer poses a threat to water quality and beneficial uses of water resources.

11. The DOHS will require that the land title and deed restrictions for the Point Isabel Property contain provisions for full protection of remedial measures and prevention of release of polluted materials stored at the site.

12. The Board's August 28, 1985 letter found that the requirements of Subchapter 15 of the California Administrative Code (Title 23, Chapter 3) do not apply to the Point Isabel Property. The Board considers

that the remedial work implemented by the discharger involving cleanup activities, site waste disposal, site containment, post-closure maintenance, and site monitoring are consistent with the provisions of Subchapter 15. As such, the Board finds that these remedial actions exempt the discharger from the requirements of Subchapter 15 in accordance with Section 2511(d) of that subchapter.

13. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Central San Francisco Bay and its tributaries.

14. The existing beneficial uses of Central San Francisco Bay and its tributaries are:

    Industrial service and process supply
    Navigation
    Water contact and non-contact recreation
    Ocean commercial and sport fishing
    Wildlife habitat
    Preservation of rare and endangered species
    Fish migration and spawning
    Shellfish harvesting
    Estuarine habitat

15. Discharge prohibitions and post-closure monitoring specifications of this Order are based on the Basin Plan, State plans and policies, and best engineering judgment.

16. The project involves long-term monitoring and maintenance of remedial measures implemented at the site as required by a Board enforcement order and as such is exempt from the provisions of the California Environmental Quality Act in accordance with Title 14, California Administrative Code, Chapter 3, Section 15321.

17. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

18. The Board, in a public meeting, heard and considered all comments pertaining to the discharger.

IT IS HEREBY ORDERED that Santa Fe Land Improvement Company, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following at its Point Isabel Property:

A. Prohibitions

1. The discharge of waste or hazardous material directly into surface waters or into ground waters migrating off site is prohibited.

2. The activities associated with long-term, post-closure site

maintenance and monitoring and with current and future uses of the site shall not create pollution or nuisance as defined in Section 13050 (l) and (m), respectively, of the California Water Code.

B. Specifications

1. The discharger's post-closure site monitoring plan dated November 18, 1986 is hereby approved for immediate implementation according to the following specifications and to the self-monitoring program adopted with this Order:

   a. Visual monitoring of the integrities of key site structures shall be performed including shoreline protection measures, site roadway, site cap and vegetative cover, site drainage system, and landscape and other erosion control features.

   b. Ground water shall be sampled from the existing french drain system on the Point Isabel Cove side of the property.

   c. All appropriate maintenance work shall be performed as soon as possible and within a reasonable time period on key site structures and the french drain system when found.

   d. Shellfish and sediment sampling shall be performed in the Point Isabel Cove for a minimum of two years from the time of re-seeding of the shellfish beds.

   e. Self-monitoring reports shall discuss results of all monitoring and maintenance work completed during the reporting period.

C. Provisions

1. The discharger shall comply with all sections of this Order immediately upon adoption.

2. The discharger shall comply with all sections of the Self-Monitoring Program as adopted by the Board and as may be amended by the Executive Officer.

3. The discharger shall comply with all sections of the Standard Provisions and Reporting Requirements with the exception of Sections A.18 and B.

4. The discharger shall submit with the first self-monitoring report a full description of the specific sampling, analytical, and quality assurance procedures for ground water, shellfish, and sediment sampling. Procedures for shellfish and sediment monitoring may be submitted with the first report of shellfish and sediment sampling results.

5. The discharger shall submit a copy of the land title and deed restrictions for the Point Isabel Property as required by the California Department of Health Services no later than thirty (30) days from the date of signing.

6. In the event that a release of hazardous or contaminated waste or material occurs from the Point Isabel Property, the discharger shall notify the Board immediately by telephone. Such notification shall include the cause of the release, the type and estimated volume of waste or material released, and the specific corrective measures taken or planned to abate and clean up the effects of the release.

7. Cleanup and Abatement Order No. 85-008 is hereby rescinded.

8. The discharger shall permit the Regional Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:

   a. Entry upon premises where any pollution source exists, or may potentially exist, or in which any required records are kept;

   b. Access at reasonable times to copy any records required to be kept under terms and conditions of this Order;

   c. Inspection of any monitoring equipment or methods required by this Order;

   d. Sampling of any ground water or soil which is accessible, or may become accessible as part of any investigation or remedial action program, to the discharger.

9. The discharger shall file a report on any material changes in the site remedial measures, monitoring plan, deed restrictions, or uses of the site as described in this Order.

10. The discharger shall maintain in good working order and operate, as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

11. The Board will review this Order periodically and may revise the requirements when necessary.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on February 18, 1987.

Roger B. James

ROGER B. JAMES
Executive Officer

Attachments:
Self-Monitoring Program
Standard Provisions and Reporting Requirements, December 1986

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

SANTA FE LAND IMPROVEMENT COMPANY
POINT ISABEL PROPERTY
RICHMOND, CONTRA COSTA COUNTY

CONSISTING OF

PART A, dated December 17, 1986

and

PART B, dated February 18, 1987

PART B

DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

I. SAMPLING STATION LOCATIONS

A. Ground Water

Station	Description
FD	At the four standpipes of the french drain system located on the Point Isabel Cove side of the site.

B. On-Shore Facilities

Station	Description
S	Along the entire length of Point Isabel Cove and Hoffman Channel on the shoreline of the Point Isabel Property where stabilization work has been performed.
C	At all points on the entire surface of the clay cap and vegetative cover on the Point Isabel Property.
D	At all points along the entire site drainage system including catch basins, drainage pipes, inlet and outlet structures, drainage ditches, road drainage devices, and all related structures.
R	Along the entire length of site roadways.

B. Off-Shore Sampling

Station	Description
SH	Twelve shellfish sampling locations within the Point Isabel Cove area as shown in Figure 1 of the attached November 18, 1986 Post-Closure Site Monitoring Plan.
SE	Twelve sediment sampling locations corresponding to the shellfish (SH) stations.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The following shall constitute the schedule of sampling and analysis:

Station	Constituent	Units	Type of Sample	Minimum Frequency of Sampling and Analysis
FD	Total Soluble Lead, Field-Filtered	mg/l	Composite of 200-ml grab samples collected from each of the four standpipes	Semi-annual (April and October)
FD	Temperature	°F	(same as above)	(same as above)
FD	pH	pH units	(same as above)	(same as above)
FD	Electrical Conductivity	umhos/cm	(same as above)	(same as above)
S	Observations	--	Grab	Quarterly
C	Observations	--	Grab	Quarterly
D	Observations	--	Grab	Quarterly
R	Observations	--	Grab	Quarterly

B. The specific sampling, analytical, and quality assurance procedures for shellfish and sediment monitoring shall be submitted with the first report of shellfish and sediment sampling results. Copies of this information and test results shall be sent to the California Department of Fish and Game and the California Department of Health Services-Toxic Substances Control Division.

III. REPORTING REQUIREMENTS

A. Self-monitoring reports shall be submitted on a quarterly basis by the fifteenth (15th) day of the month following the reporting period. The reporting periods shall consist of the following periods: January-March, April-June, July-September, and October-December.

B. Self-monitoring reports shall discuss all monitoring and maintenance work, analytical test results, and compliance with Order No. 87-14.

C. Each self-monitoring report shall contain a site map showing station locations, key site structures visually inspected, and areas and dates of maintenance work performed or planned.

IV. MODIFICATIONS TO PART A, dated December 17, 1986

Deletions: D, E.1, E.2, E.4.a, F.2, F.3, F.5, G.2, G.4.b, G.4.e., and G.5.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 87-14.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

March 3, 1987
Effective Date

Attachments:
Post-Closure Site Monitoring Plan of
November 18, 1986
Regional Board Order No. 73-16

PROPOSED POST-CLOSURE SITE MONITORING PLAN

POINT ISABEL PROPERTY - RICHMOND, CALIFORNIA
SANTA FE LAND IMPROVEMENT CO.
NOVEMBER 18, 1986

Introduction

Santa Fe Land Improvement Co. has implemented a remedial clean-up of the Point Isabel site in Richmond, California in accordance with the Clean-up and Abatement Order 85-008 as issued by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). The remedial program construction at the Point Isabel property was completed on November 12, 1986. This report details the proposed post-closure monitoring plan for the site.

Monitoring Plan Summary

Semi-annual sediment and shellfish monitoring will be conducted in Pt. Isabel Cove for a period of two years to document lead concentrations in the Cove. Assuming significant re-contamination of off-shore sediments due to migration from the site is not identified, the sediment and shellfish monitoring program will be implemented for a two-year period. While studies have shown that ground water is not a significant lead transport mechanism at the site, ground-water monitoring from the existing french drain on the Cove side of the property will also be conducted semi-annually in response to requests from RWQCB staff. Visual monitoring of the integrity of the stabilized shoreline and site cap will continue on a quarterly basis for the life of the site.

Shellfish and sediment monitoring will not be conducted in Hoffman Channel since possible recontamination of that Channel would be likely from other sources including Highways 880 and 80 drainage and property to the south. The potential for recontamination due to these other sources has been well-recognized and is the reason no shellfish re-establishment was attempted in Hoffman Channel.

Annual monitoring reports will be submitted to the RWQCB, DOHS and Department of Fish and Game summarizing the results of the monitoring program.

Monitoring Plan Description

The elements of the proposed site monitoring plan are as follows:

1) quarterly visual monitoring of the key site structures (shorelines, cap, etc.);

2) semi-annual ground-water monitoring from the existing french drain on the Cove side of the property;

3) semi-annual shellfish and sediment sampling in the Point Isabel Cove.

Bd. staff requests quarterly reports

A report will be submitted annually detailing the results of the monitoring conducted in that year. The annual report will be submitted by the end of the first quarter of the following year.

Further details of the three key elements of monitoring are presented in the following discussion.

Visual Monitoring

Visual monitoring of the structural integrity of the on-shore components of the remedial construction will be conducted on a quarterly basis. Quarterly visual monitoring of key structural components of the remedial plan will continue through the life of the site. Should visual monitoring determine any problems with the structural integrity of the key site structures then additional maintenance will be implemented as required. Visual monitoring will include evaluation of the integrity of:

1) the clay cap and vegetative cover to verify that underlying native soils are not exposed due to erosion or excessive cracking of the soils,

2) site drainage structures including the drainage pipe, catch basins, outlet structures, and drainage ditches,

3) the rock shoreline and underlayer fabrics (monitored at low tide) to verify that slippage or erosion has not occurred,

4) the site roadways to verify that the rock and bituminous seal has remained intact.

The condition of each of these structural elements on the site and recommendations for required maintenance (if any) will be noted. Maintenance, if needed, will be completed as soon as possible after the visual site inspections. Maintenance might include importing additional clay where excessive erosion or cracking has occurred, cleaning of drainage ditches or drainage

pipe, adding additional rock and seal where there is roadway damage, or importing additional rock where rock has eroded from the shoreline due to wave action.

Ground-Water Sampling

While previous studies at the site have demonstrated that insolubility of lead in site ground water and that ground water has not been an important transport mechanism for lead at the site, ground-water monitoring has been added to the monitoring program in response to requests from RWQCB staff. Ground-water monitoring will be conducted on a semi-annual (every six months) basis.

In the process of remedial construction, a rock drainage cut-off trench was constructed for a distance of approximately 900 feet along and parallel with the north shoreline at Point Isabel. The cut-off trench was constructed with the bottom of trench at approximately elevation 2.0 feet 1929 N.G.V.D. Four vertical stand pipes were connected to a perforated pipe which was installed in the cut-off trench bottom. The standpipes will be cut below grade, capped and protected in a christy box.

As the french drain provides excellent access to ground water throughout the northern portion of the site, it will be utilized for ground-water sampling. Due to the similarity in conditions throughout the site, sampling from other areas of the site is not considered necessary. For each sampling event, four ground-water samples will be collected (one from each of the existing standpipes). One duplicate and one blank sample will be collected at the time of sampling. The field-filtered (45-micron filter) and acidified samples will be analyzed for total lead to measure potential soluble concentrations of lead in the groundwater.

Sampling of the groundwater will be conducted within one month of completion of the remedial construction to provide an initial baseline ground-water lead concentration. Thereafter, sampling of the groundwater will be conducted semi-annually for two years.

Off-Shore Shellfish and Sediment Sampling

Off-shore shellfish and sediment sampling in the Point Isabel cove will be conducted within one month after completion of the remedial construction and semi-annually for two years thereafter. Completion of the shellfish implanting program is anticipated in the spring of 1986 after the substrate has had sufficient time to stabilize and receive deposition of fine sediment. Santa Fe will not conduct monitoring in the Hoffman Channel as it is understood that other potential sources, including run-off from Highways 880 and 80 to the east and shoreline to the south, may contribute lead to the channel. It is our understanding that monitoring in the Hoffman Channel, if necessary, will be conducted by others.

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A total of 12 sediment and shellfish monitoring locations will be sampled within the Point Isabel cove area as shown on the attached Figure 1. In addition, five sediment locations will be sampled just outside of the cove entrance to monitor local background concentrations. The sediment and shellfish samples will be collected from the upper one foot depth using an Eckman or Petersen dredge sampler. The sediment and shellfish samples will be analyzed for total lead concentration. A qualified hydrographic surveyor will document the location of each sample collected.

Shellfish samples will be screened and washed to separate the shellfish present from the sediments. Shellfish will be identified and organisms segregated by organism classification. Each organism classification will be analyzed separately and if more than one organism in a class is collected at a sampling location, then the organisms will be composited. The shellfish tissue samples will be digested and analyzed for total lead.

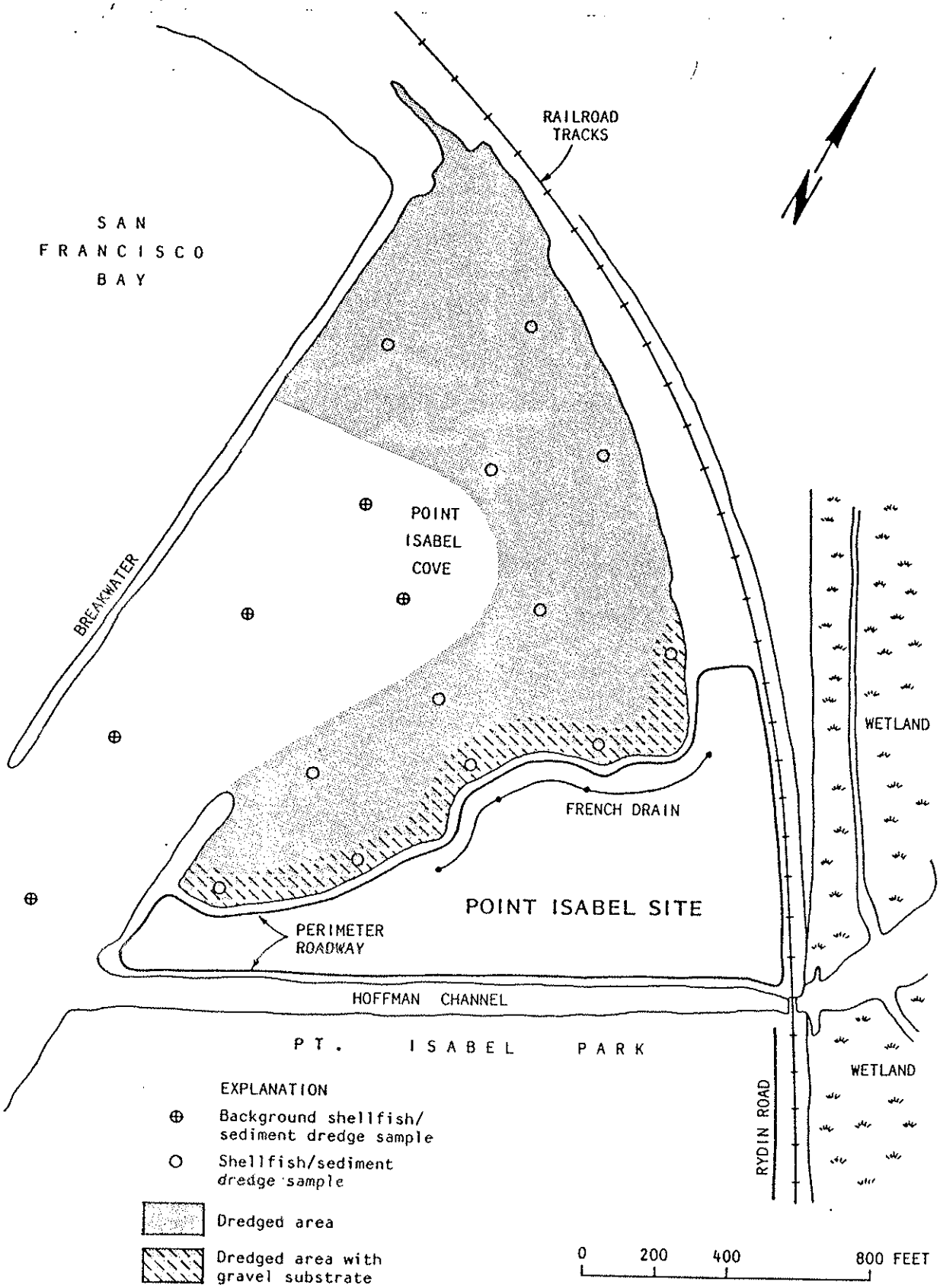

Figure 1 : POST-CLOSURE OFF-SHORE SAMPLING LOCATIONS

Project No. 1012

LEVINE·FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

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